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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,626	03/30/2000	THOMAS MULLER	3926.004	7855

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EXAMINER	
YUN, EUGENE	
ART UNIT	**PAPER NUMBER**
2682	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/509,626	MULLER, THOMAS	
	Examiner	Art Unit	
	Eugene Yun	2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 December 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lazaris-Brunner et al. (US 5,956,620) in view of Ostman et al. (US 6,069,923).

Referring to Claim 1, Lazaris-Brunner teaches a process for simultaneously receiving radio standards, comprising:

-analog signal processing 30 and 28 (fig. 3) and subsequently superposing 24 (fig. 3) multiple modulation types of radio standards in a single radio receiver (see col. 6, lines 62-66); and

-carrying out a separation of the multiple modulation types by subsequent digital signal processing 20 (fig. 3).

Lazaris-Brunner does not teach receiving different radio standards and multiple various types of radio standards. Ostman teaches receiving different radio standards and multiple various types of radio standards (see A and B of fig. 3a noting 2 different radio standards DECT and DCS). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Ostman to said process of Lazaris-Brunner in order to better minimize the parts of a receiver when receiving signals of different modulation frequencies.

Referring to Claim 10, Lazaris-Brunner teaches a process for simultaneously receiving radio standards in a single radio receiver, comprising:

-analog signal processing 30 and 28 (fig. 3) of multiple modulation types of radio standards in a single radio receiver (see col. 6, lines 62-66), superposing said multiple modulation types of radio standards onto a common intermediate frequency 24 (fig. 3), mixing the product of said superposing 16 (fig. 3); and

-subsequently carrying out a seperation of the mixed product by digital signal processing 20 (fig. 3).

Lazaris-Brunner does not teach receiving different radio standards and multiple various types of radio standards. Ostman teaches receiving different radio standards and multiple various types of radio standards (see A and B of fig. 3a noting 2 different radio standards DECT and DCS). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Ostman to said process of Lazaris-Brunner in order to better minimize the parts of a receiver when receiving signals of different modulation frequencies.

Referring to Claim 2, Lazaris-Brunner also teaches the superposing carried out in two frequency ranges (see col. 9, lines 1-11).

Referring to Claim 3, Lazaris-Brunner also teaches the superposing of high-frequency signals 24 (fig. 3) carried out prior to the first mixing step 16 (fig. 3).

Referring to Claim 8, Lazaris-Brunner also teaches an A/D conversion carried out prior to demodulation 20 (fig. 3).

Referring to Claim 4, Ostman also teaches the sum of the output of two narrow band oscillators is employed local oscillator for the first mixing step (see 208a and 208b of fig. 2a and 308 of fig. 3a).

Referring to Claim 5, Ostman also teaches that for each modulation type, one filter 204a and 204b (fig. 2a) and amplifier 202a and 202b (fig. 2a) is employed.

Referring to Claim 9, Lazaris-Brunner teaches a process for simultaneously receiving radio standards, comprising:

-receiving 12 (fig. 3) and superposing 24 (fig. 3) multiple modulation types of radio standards in a single radio receiver (see col. 6, lines 62-66) following an analog signal processing 30 and 28 (fig. 3); and

-carrying out a separation of the same by a subsequent digital signal processing 20 (fig. 3).

Lazaris-Brunner does not teach receiving different radio standards and multiple various types of radio standards. Ostman teaches receiving different radio standards and multiple various types of radio standards (see A and B of fig. 3a noting 2 different radio standards DECT and DCS) and one of the various modulation types including a CDMA encoded signal (see col. 7, lines 39-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Ostman to said process of Lazaris-Brunner in order to better minimize the parts of a receiver when receiving signals of different modulation frequencies.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lazaris-Brunner and Ostman in view of Krasner (WO 97/14056).

Referring to Claim 6, the combination of Ostman and Lazaris-Brunner does not teach that for all modulation types, a special HF-filter with level accommodation and band selection is employed. Krasner teaches that for all modulation types, a special HF-filter 3 and 4 (fig. 1A) with level accommodation and band selection is employed (see pg. 5, lines 7-8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Krasner to said process of Lazaris-Brunner in order to better minimize the parts of a receiver when receiving signals of different modulation frequencies.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lazaris-Brunner, Ostman and Krasner in view of Kim (US 5,963,592).

Krasner teaches a superposing of a CDMA-encoded signal (GPS signal in fig. 1A is an example of a CDMA-encoded signal). The combination of Lazaris-Brunner, Ostman, and Krasner does not teach the superposing of a OFDM-encoded signal. Kim teaches the superposing of a OFDM-encoded signal (see col. 1, lines 47-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Kim to said process of Krasner in order to better use one circuitry for two different radio standards.

Response to Arguments

5. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Yun whose telephone number is (571) 272-7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eugene Yun
Examiner
Art Unit 2682

EY

NICK CORSARO
PRIMARY EXAMINER